REMARKS

In the April 19, 2005 Office Action, the Examiner noted that claims 1-29 were pending in the application; rejected claims 2, 3, 8, 9, 11-15, 23, 25 and 27-29 under 35 USC § 102(e); and rejected claims 1, 4-7, 10, 16-22, 24 and 26 under 35 USC § 103(a). In rejecting the claims, U.S. Patents 6,324,581 to Xu et al. and 5,515,537 to Tavares et al. (References A and B, respectively) were cited. Claims 9, 13, 15 and 29 have been cancelled and thus, claims 1-8, 10-12, 14 and 20-28 remain in the case. The Examiner's rejections are traversed below.

Rejections under 35 USC § 102(e)

In items 9 and10 on pages 2-8 of the Office Action, claims 2, 3, 8, 9, 11-15, 23, 25 and 27-29 were rejected under 35 USC § 102(e) as anticipated by Xu et al. The independent claims rejected under 35 USC § 102(e) have been amended to clarify that like claims 1, 10, 14 and 27 as previously recited, all of the independent claims are directed to a file replication system or method, or as now recited in claim 2, "a replicated file system" in which "every node ... [has] a copy of files synchronized with files of other nodes for high availability and high performance" (claim 2, lines 2-3). In addition, the independent claims have been amended to remove the word "shared" as an adjective describing the file that is accessed by the nodes, since these files are not shared in the sense of a single file accessed by multiple nodes, but rather by replicating the file.

As recognized by the Examiner in not rejecting claim 1 as anticipated by Xu et al., Xu et al. does not disclose a system like that recited in the independent claims. In Xu et al., a data mover 41 (Fig. 2) has access to files in file system 43 and accesses file system 44 by receiving metadata from data mover 42 which ordinarily accesses file system 44. Both file systems 43 and 44 are in a cached disk array 45 and thus are shared files. Unlike the system disclosed by Xu et al., the present invention is directed to a system in which data is distributed to the nodes and files are replicated.

Item 201 in Fig. 12 of Xu et al. which was cited in the Office Action as corresponding to the token managing portion recited in claim 2 is a data processor used in a system according to the invention disclosed in Xu et al. which does not inherently have the capability of managing tokens. The text in Xu et al. that was cited is a description of prior art Fig. 1 in which the data in cached disk array 25 is not accessible by both data movers 21 and 22, but rather "the file system 23 is accessible only through the data port connected to the first data mover 21 and.... the file system 24 is accessible only through the data port connected to second data mover 22" (column

2, lines 10-13). Therefore, when data mover 21 receives a request for a file system owned by data mover 22, "data mover 21 forwards the request to the data mover [22] that owns the file system to be accessed" (column 2, lines 35-37) and data mover 22 accesses the data and returns it to data mover 21. There is no suggestion in this text of any use of a token providing "updating permission for the file" (claim 2, line 9) or an "IO request intercepting portion accessing the file in said node when the IO request intercepting portion is capable of acquiring the access permission" (claim 2, lines 12-13). In the embodiment illustrated in Fig. 2 of Xu et al., access is not obtained to "the file in said node" (claim 2, line 12), but rather to a shared file in cached disk array 45. For the above reasons, it is submitted that claim 2 and the other independent claims which recite similar limitations patentably distinguish over Xu et al.

Rejections under 35 USC § 103(a)

In items 12-14 on pages 8-10 of the Office Action, claims 1 and 10 were rejected under 35 USC § 103(a) as unpatentable over Xu et al. in rejecting these claims, as in the rejection under 35 USC § 102(e), column 2, and Fig. 12 of Xu et al. were cited. However, as indicated above, Fig. 12 is an illustration of a data processor according to the invention disclosed in Xu et al., while column 2 contains a description of the prior art as illustrated in Fig. 1 of Xu et al. As also discussed above, neither the prior art system or the disclosed system as illustrated in Figs. 2 and 12 of Xu et al. perform token management as recited in the independent claims. Therefore, it is submitted that claims 1 and 10 patentably distinguish over Xu et al. for the reasons discussed above.

In items 15-18 on pages 10-14 of the Office Action, claims 4-7, 16-22, 24 and 26 were rejected under 35 USC § 103(a) as unpatentable over Xu et al. in view of Tavares et al. Claims 4-7 depend from claim 2 and claims 16-22, 24 and 26 depend from claim 14. Nothing was cited or has been found in Tavares et al. suggesting modification of Xu et al. to perform token management as recited in the independent claims, including claims 2 and 14. Rather, Tavares et al. is concerned with a locking mechanism required for managing processors connected by a network and executing in parallel. While Fig. 7 of Tavares et al. illustrates data replication hardware 40a-40c, it is submitted that this is insufficient to suggest how Xu et al. could be modified to form a "replicated file system" (e.g., claim 2, line 3). Furthermore, "token 36a" (column 6, line 57) described in the cited portions of Tavares et al. is employed for a general token-ring network and state transition of a system, not for "update permission for the file" (e.g., claim 2, line 9). Therefore, it is submitted that claim 4-7, 16-22, 24 and 26 patentably distinguish over the

combination of Xu et al. in view of Tavares et al. for at least the reasons discussed above with respect to claim 2 (since claim 14 recites similar limitations).

Request for Withdrawal of Finality

In item 22 on page 15 of the Office Action, it was asserted that "[t]he applicant's amendment necessitated the new grounds of rejection" (page 15, line 12). However, only claims 14-17 and 23 were amended in the November 15, 2004 Amendment. Since the other independent claims were not amended, the changes made in the November 14, 2004 Amendment could not possibly have necessitated the new grounds for the rejection of those claims. It is quite clear from the record that the reason that the grounds for rejection changed was that the reference used in the first Office Action was not prior art. Thus, there is no question that the finality of the April 19, 2005 Office Action should be withdrawn.

Summary

It is submitted that the references cited by the Examiner, taken individually or in combination, do not teach or suggest the features of the present claimed invention. Thus, it is submitted that claims 1-8, 10-12, 14 and 20-28 are in a condition suitable for allowance. Entry of the Amendment, reconsideration of the claims and an early Notice of Allowance are earnestly solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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